

1 This listing of claims will replace all prior versions, and listings, of claims  
2 in the application:

3  
4 **Listing of Claims**

5  
6 Claim 1 (Currently amended): A method for accommodating a legacy  
7 application, the legacy application having provisions for a low-level credential  
8 authorization model which employs username-and-password based authorization,  
9 the method comprising:

10 obtaining a request from a high-level credential authorization model for a  
11 high-level credential [[from]] to be provided by [[a]] the legacy application,  
12 wherein [[a]] the high-level credential authorization model does not employ  
13 username-and-password based authorization; and

14 marshal[[I]]ing the requested high-level credential, the marshal[[I]]ing is  
15 characterized by converting a description of the high-level credential into a format  
16 recognizable as a low-level credential by the legacy application employing a low-  
17 level credential authorization model[[;]].

18 ~~returning the marshaled credential to the legacy application.~~

19  
20 Claim 2 (Original): A method as recited in claim 1 further  
21 comprising, after the obtaining, seeking the requested credential in a database of  
22 credentials.

1 Claim 3 (Original): A method as recited in claim 1, wherein a high-  
2 level credential is a credential selected from a group composed of X.509  
3 Certificates and bio-metrics.  
4

5 Claim 4 (Original): A method as recited in claim 1, wherein the  
6 marshaled credentials appear to be a conventional username/password pair to the  
7 legacy application.  
8

9 Claim 5 (Currently amended): A method as recited in claim 1, wherein  
10 marshal[[I]]ing comprises:

11 obtaining the requested high-level credential;

12 ~~pickling~~converting the requested high-level credential to generate a low-  
13 level credential that represents the requested high-level credential while appearing  
14 to be a conventional username/password pair to the legacy application.  
15

16 Claim 6 (Original): A method as recited in claim 1, wherein the  
17 legacy application never has access to the high-level credential.  
18

19 Claim 7 (Original): A computer-readable medium having computer-  
20 executable instructions that, when executed by a computer, perform a method as  
21 recited in claim 1.  
22  
23  
24  
25

1 Claim 8 (Currently amended): In a computing environment where  
2 certain processes have a provision for low-level credentials but have no provision  
3 for high-level credentials, wherein a provision for low-level credentials employs  
4 username-and-password based authorization while a provision for high-level  
5 credentials does not employ username-and-password based authorization, a  
6 method for accommodating such processes comprising:

7 obtaining a request for a credential from a process, wherein the requested  
8 credential is a high-level credential, which is not username-and-password based;  
9 retrieving the requested credential from a database;  
10 converting the requested high-level credential into a format approximating a  
11 low-level credential and representative of the requested high-level credential;  
12 returning the converted credential to the process.

13  
14 Claim 9 (Original): A method as recited in claim 8, wherein a high-  
15 level credential is a credential selected from a group composed of X.509  
16 Certificates and bio-metrics.

17  
18 Claim 10 (Original): A method as recited in claim 8, wherein the  
19 converted credentials appear to be a conventional username/password pair to the  
20 process.

21  
22 Claim 11 (Original): A method as recited in claim 8, wherein the  
23 process never has access to the high-level credential.  
24  
25

1           Claim 12 (Original):       A computer-readable medium having computer-  
2 executable instructions that, when executed by a computer, perform a method as  
3 recited in claim 8.

4  
5           Claim 13 (Original):       A method for authenticating a user to a network,  
6 the method comprising:

7           obtaining a request for a credential to authenticate the user to access a  
8 resource within the network, wherein the resource requires an appropriate  
9 credential before the user may access the resource;

10          locating the appropriate credential;

11          returning the appropriate credential to the resource within the network, so  
12 that the resource allows the user to access such resource;

13          wherein the obtaining, locating, and returning are performed without user  
14 interaction so that the user need not be aware that such steps are being performed.

15  
16          Claim 14 (Original):       A method as recited in claim 13 further  
17 comprising repeating the obtaining, locating, and returning for a different network  
18 that is authenticated using a different credential.

19  
20          Claim 15 (Original):       A computer-readable medium having computer-  
21 executable instructions that, when executed by a computer, perform a method as  
22 recited in claim 13.

23  
24          Claims 16-17 (Canceled)

1 Claim 18 (Previously presented): A credential management  
2 architecture, comprising:

3 a trusted computing base (TCB) that has full access to persisted credentials,  
4 the TCB being configured to interact with an untrusted computing layer (UTCL)  
5 that accesses the persisted credentials via the TCB;

6 the TCB comprises:

7 a credential management module configured to receive requests from  
8 the UTCL for a high-level credential for a resource, the high-level  
9 credential being associated with a user and not being username-and-  
10 password based authorization;

11 a credential database associated with the user, wherein credentials  
12 are persisted within the database;

13 the credential management module being configured to retrieve  
14 credentials from the database.

15  
16 Claim 19 (Previously presented): An architecture as recited in claim  
17 18, wherein credential management module is further configured to marshal a  
18 requested high-level credential and return the marshaled credential to the UTCL.

19  
20 Claim 20 (Original): An architecture as recited in claim 18, wherein  
21 the marshaled credentials appear to be a conventional username/password pair to  
22 the UTCL.

1           Claim 21 (Original):       A computer-readable medium having computer-  
2 executable instructions that, when executed by a computer, employ an architecture  
3 as recited in claim 18.  
4

5           Claim 22 (Original):       An operating system embodied on a computer-  
6 readable medium having computer-executable instructions that, when executed by  
7 a computer, employ an architecture as recited in claim 18.  
8

9           Claim 23 (Previously presented):       An apparatus comprising:  
10 a processor;  
11 a marshaler executable on the processor to:

12                   obtain a high-level credential, wherein a high-level credential  
13 is employed in an authorization model which is not username-and-  
14 password based authorization;

15                   convert the high-level credential to generate a representation  
16 of the high-level credential that is formatted as a low-level credential  
17 so that it appears to be a conventional username/password pair.  
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25

1 Claim 24 (Currently amended): An ~~low-level-credential-~~  
2 ~~application~~-accommodation system comprising:

3 a request obtainer configured to obtain a request for a high-level credential  
4 from a low-level-credential-application, wherein low-level credentials utilizes  
5 username-and-password based authorization while high-level credentials do not  
6 employ username-and-password based authorization;

7 a credential retriever configured to retrieve the requested credential from a  
8 database of credentials;

9 a marshal[[1]]er configured to marshal the requested credential and return  
10 the marshaled credential to the low-level-credential-application, [[the]]wherein  
11 marshal[[1]]ing performed by the marshal[[1]]er is characterized by converting a  
12 description of the high-level credential into a format recognizable as a low-level  
13 credential by the low-level-credential-application employing a low-level credential  
14 authorization model.

15  
16 Claim 25 (Original): A system as recited in claim 24, wherein a high-  
17 level credential is a credential selected from a group composed of X.509  
18 Certificates and bio-metrics.

19  
20 Claim 26 (Original): A system as recited in claim 24, wherein the  
21 marshaled credentials appear to be a conventional username/password pair to the  
22 legacy application.

23  
24 Claim 27 (Canceled)

1           Claim 28 (Previously presented):           A system as recited in claim 24,  
2 wherein the low-level-credential-application never has access to the high-level  
3 credential.

4  
5           Claim 29 (Currently amended):           A system for authenticating a user  
6 to a network, the system comprising:

7           a request obtainer configured to obtain a request for a high-level credential  
8 to authenticate the user to access a resource within the network, wherein the  
9 resource requires an appropriate credential before the user may access the  
10 resource, wherein a high-level credential do not utilize username-and-password  
11 based for high-level credential authorization;

12           a credential retriever configured to retrieve the appropriate high-level  
13 credential from a database of credentials;

14           a credential marshal[[l]]er configured to generate a representation of the  
15 high-level credential ~~that~~ is formatted as a low-level credential so that it appears to  
16 be a conventional username/password pair to a low-level-credential-application,  
17 wherein a low-level credential utilizes username-and-password based  
18 authorization;

19           a credential returner configured to return the marshaled high-level  
20 credential to the resource within the network, so that the resource allows the user  
21 to access such resource;

22           wherein the obtainer, retriever, marshal[[l]]er, and returner are further  
23 configured to operate without user interaction.



1           Claim 30 (Original):       An operating system comprising a system as  
2 recited in claim 29.

3  
4           Claim 31 (Original):       A network environment comprising a system as  
5 recited in claim 29.

6  
7           Claim 32 (Currently amended):   An application programming interface  
8 (API) method comprising:

9           receiving a CredUI-promptfor-credentials call having a set of parameters  
10 comprising a TargetName, Context, AuthFlags, and Flags;

11           ~~retrieving parsing the call to retrieve~~ the parameters ~~from the call~~ to  
12 determine a specified resource;

13           obtaining a credential;

14           associating the credential with the specified resource;

15           persisting the credential into a database while maintaining the credential's  
16 association with the specified resource.

17  
18           Claim 33 (Original):       A method as recited in claim 32, wherein the set  
19 of parameters further comprises an indicator of a data structure containing  
20 customized information to display in conjunction with a user interface.

1           Claim 34 (Currently amended):   An application programming interface  
2 (API) method comprising:  
3           receiving a CredUI-promptfor-credentials call having a set of parameters  
4 comprising a TargetName, UserName, Password, and Flags;  
5           ~~retrieving parsing the call to retrieve~~ the parameters ~~from the call to~~  
6 determine a requesting application;  
7           obtaining a low-level credential from a user, wherein such credential  
8 includes a username and a password;  
9           returning the low-level credential to the requesting application.

10  
11           Claim 35 (Original):           A method as recited in claim 34, wherein the set  
12 of parameters further comprises an indicator of a data structure containing  
13 customized information to display in conjunction with a user interface.